Work Order ID 115504

April-02-14 11:14:04 AM

115504

Item ID: D3391-023 **Accept** *N900040100* **Setup Start** *NS1*

Revision ID:

Item Name: Mid Tube Assembly **Stop** *NS2*

Start Date: 4/02/14 **Start Qty:** 1.00 *1*

Required Date: 4/16/14 **Req'd Qty:** 1.00 *1*

Reference:

Cust Item ID:

Customer:

Approvals: **Process Plan:** MLS **Date:** 14-04-02 **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
100	Skidtubes	0.00							
100									
Skidtubes	**Memo**	0.00							
Skidtubes	1-Cut tube to finish length as per Dwg D3391								

Draw Nbr	Revision Nbr
D3391	I

2-Drill pilot holes using DT8796 (Do not drill "B" holes) and drill only 1 fwd saddle hole on one side only as per Dwg D3391

3-Open saddles and GHW holes to Ø0.375" exept for fwd saddle hole of detail "J"

4-Remove .030" from Fwd indexing Ridge as per Dwg D3391

5-Remove indexing ridge on Fwd & Aft end of skidtube as per Dwg D3391

6-Deburr

7-Drill #30 pilot holes using wearplate Jig DT8217 Identify Ø0.250" holes with paint marker,
***DO NOT DRILL HOLES #3-19-20 FROM FWD END OF JIG

8-Open wearplate holes of D3391-023 assembly detail section G-G to Ø0.250" (10 holes) as per Dwg D3391

9-Open wearplate holes of D3391-023 assembly detail section H-H to Ø0.297" (20 holes) as per Dwg D3391
DO NOT OPEN 2 MOST FWD WEARPLATE HOLES

BE14-06-25

Item ID: D3391-023 **Accept** *N900040100* **Setup Start** *NS1*
Revision ID: **Stop** *NS2*
Item Name: Mid Tube Assembly

Start Date: 4/02/14 **Start Qty:** 1.00 *1*
Required Date: 4/16/14 **Req'd Qty:** 1.00 *1*
Reference:

Cust Item ID:
Customer:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1*
Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp

10-Open .375" holes to .438" ***do not open fwd saddle holes*** BE 14-06-25

11-Locate D3391-021 in D3391-023 at 9.00" (see view z-z)

12- Transfer drill one fwd saddle hole only to .188" dia, transfer drill all remaining fwd saddle holes using DT 8149 locating from previusly drill .188" dia hole, using t-pins and clicos to ensure perfect allingment, open up previusly tranfer drilled pilot holes in D3391-023/-021 to 0.438" dia. in D3391-021 D3391-021 BATCH: 15497

13- Using DT8217, locating from two previusly drilled holes, drill remaining wearplate holes into D3391-021.

14- Locating from two fwd wearplate holes in D3391-023 drill remaining 6 wearplte holes in D3391-021 using DT8937

15- Open 10 wearplate holes in D3391-021 to 0.297" dia.

16- insert D3391-021 into D3391-23

17- insert T-pins into first and third fwd saddle holes

18- ON FIRST SIDE ONLY drill out 2nd and forth fwd saddles holes to 0.500" as per

19- ON 2ND SIDE ONLY ream out 2nd and forth saddle hole to 0.499".

20-Deburr and blow out all chips from inside tube, scribe batch # in D3391-023 at aft end.

DP 14-7-22

Work Order ID 115504

April-02-14 11:14:04 AM

115504

Item ID: D3391-023 **Accept** *N9000040100* **Setup Start** *NS1*

Revision ID: **Stop** *NS2*

Item Name: Mid Tube Assembly

Start Date: 4/02/14 **Start Qty:** 1.00 *1*

Required Date: 4/16/14 **Req'd Qty:** 1.00 *1*

Reference:

Cust Item ID:

Customer:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110	QC5- Inspect part completeness to step on W/O	0.00							
110									
QC	**Memo**	0.00							
Quality Control									
120	Chemical Conversion Coat per QSl005 4.1	0.00							
120									
HandFinish	**Memo**	0.00							
Hand Finishing									
130	QC7-Inspect Chemical Conversion Coat	0.00							
130									
QC	**Memo**	0.00							
Quality Control									

14-7-28

14-7-28

Item ID: D3391-023 **Accept** *N900040100* **Setup Start** *NS1*
Revision ID: **Stop** *NS2*
Item Name: Mid Tube Assembly

Start Date: 4/02/14 **Start Qty:** 1.00 *1*
Required Date: 4/16/14 **Req'd Qty:** 1.00 *1*
Reference:

Cust Item ID:
Customer:

Run Start *NR1*
Stop *NR2*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140		0.00							
140	Skidtubes								
Skidtubes									
Skidtubes	**Memo**	0.00							
	1-Open float bag holes as per dwg 2-C'sink float bag holes as per dwg 3- Prepare tube for welding 4-Bond web in place as per Dwg D3391 & QSI 015. Adhere for 12 hours) A/R Sikaflex exp: 14-11-20 batch#: M129457 NOTE:ENSURE WEB IS INSERTED IN AFT END OF TUBE								
150	QC5- Inspect part completeness to step on W/O	0.00							
150									
QC	**Memo**	0.00							
Quality Control									

1 DP 14-7-29

DAS 18 9-89

1 0 14-07-30

Item ID: D3391-023 **Accept** *N9000040100* **Setup Start** *NS1*
Revision ID: **Stop** *NS2*
Item Name: Mid Tube Assembly
Start Date: 4/02/14 **Start Qty:** 1.00 *1*
Required Date: 4/16/14 **Req'd Qty:** 1.00 *1*
Reference:
Cust Item ID:
Customer:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1*
Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160		0.00							
160	Skidtubes					1	0	LE 140730	
Skidtubes	**Memo**	0.00	A/R M129285						
Skidtubes	1-Weld crossbolt spacer as per dwg D3391 & QSI 004 2-grind weld flush								
170	QC10- Inspect visual per QSI004- ground welds	0.00	DAS 38 9-89	DAS 9 9-89		1			
170									
QC	**Memo**	0.00	14/08/06						
Quality Control									
180	QC5- Inspect part completeness to step on W/O	0.00		DAS 9 9-89		1			
180									
QC	**Memo**	0.00	DAS 38 9-89						
Quality Control									
			14/08/06						

Item ID: D3391-023 **Accept** *N900040100* **Setup Start** *NS1*
Revision ID: **Stop** *NS2*
Item Name: Mid Tube Assembly

Start Date: 4/02/14 **Start Qty:** 1.00 *1*
Required Date: 4/16/14 **Req'd Qty:** 1.00 *1*
Reference:

Cust Item ID:
Customer:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1*
Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
185	Pressure Wash per QSI005 4.3	0.00				1	76499		
185									
HandFinish	**Memo**	0.00							
Hand Finishing	AND REALODINE AS PER PAR09-043								
190	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum M138954	0.00				1	ϕ	4-9-17	DAS 34 9-89
190									
Powdercoat	**Memo**	0.00							
Powder Coating	START TIME: 3:30 OVEN TEMPERATURE: 200° FINISH TIME: 4:00								
200	QC3- Inspect Part Finish	0.00				1x	ϕ	all w/o e/k	DAS 15 9-89
200									
QC	**Memo**	0.00							
Quality Control									

Item ID: D3391-023 **Accept** *N900040100* **Setup Start** *NS1*
Revision ID: **Stop** *NS2*
Item Name: Mid Tube Assembly
Start Date: 4/02/14 **Start Qty:** 1.00 *1*
Required Date: 4/16/14 **Req'd Qty:** 1.00 *1*
Reference:
Cust Item ID:
Customer:

Run Start *NR1*
Stop *NR2*

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
230		0.00							
230	HandFinishing					1a	ϕ	ML	14-09-19
HandFinish	**Memo**	0.00							
Hand Finishing	✓ 1- press fit D3591-1 spacers using DT9416 starting from 0.500" side								
	✓ 2-Install Inserts as per Dwg								
240	QC5- Inspect part completeness to step on W/O	0.00							DAS 38 9-89
240						1			14-9-22
QC	**Memo**	0.00							
Quality Control									
250	Identify as per dwg & Stock Location: W6	0.00	D412-742-043 / B115493						
250						1a	ϕ	ML	14-09-19
Packaging	**Memo**	0.00							
Packaging									

Item ID: D3391-023 **Accept** *N900040100* **Setup Start** *NS1*
Revision ID: **Stop** *NS2*
Item Name: Mid Tube Assembly

Start Date: 4/02/14 **Start Qty:** 1.00 *1*
Required Date: 4/16/14 **Req'd Qty:** 1.00 *1*
Reference:

Cust Item ID:
Customer:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run Start *NR1*
Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
260	QC21- Final Inspection - Work Order Release	0.00							
260						MLJ	14-09-22		
QC	**Memo**	0.00							
Quality Control									

14-9-22

Picklist Print

April-02-14 11:14:08 AM

Work Order ID: 115504 *115504*

Parent Item: D3391-023 *D3391-023*

Parent Item Name: Mid Tube Assembly

Start Date: 4/02/14 **Required Date:** 4/16/14

Start Qty: 1.00 **Required Qty:** 1.00

Comments:

IPP A05.10.20New Issue KJ/EC
IPP B06.02.10ECN773 dwg rev.D EC
IPP C 07.03.20 rev F dwg EC
IPP D 07.03.28 re-format EC
IPP E 07.10.31 ecn 1053P EC
IPP Rev:F ECN 1056 07-11-13 DD verified by: EC
IPP Rev:G 08-09-08 new process (ecn 08-510) DD verified by:EC
IPP Rev:H 08-09-10 revH as per dwg DD verified by:EC
IPP Rev: I 08-11-13 Removed steps per w/o, QC KJ verified by: ec IPP
Rev:J add in seq 140 expire date &b# sikaflex DD 10.02.17 verified by:EC

Component Item ID / Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2500-1-100 *D2500-1-100* Skidtube Extrusion		Manufactured	No			100	Each	83.0000	1 **	1		BE14-06-25	
				Location		**Loc Qty**		**Loc Code**					
				HALL		83							
					82373 86065	22 61							
D3389-1 *D3389-1* Web		Manufactured	No			140	Each	8.0000	1 **	1		DP 14-7-29	
				Location		**Loc Qty**		**Loc Code**					
				LG		8							
					113057	8							
D3681-1 *D3681-1* Spacer		Manufactured	No		114969	160	Each	234.0000	5 **	5		BE14-07-30 B115130 ×5	
				Location		**Loc Qty**		**Loc Code**					
				LG		168							
					114884	168							
				LG001		66							
					109109	66							

Picklist Print

April-02-14 11:14:08 AM

Work Order ID: 115504 *115504*

Parent Item: D3391-023 *D3391-023*

Parent Item Name: Mid Tube Assembly

Start Date: 4/02/14 **Required Date:** 4/16/14

Start Qty: 1.00 **Required Qty:** 1.00

D3591-1 Manufactured No Each 88.0000 2

D3591-1

Bushing

**

Location		Loc Qty	Loc Code
FG		10	B115533 x2
	92873	10	
FP001		78	
	100699	5	
	107918	36	
	109107	37	

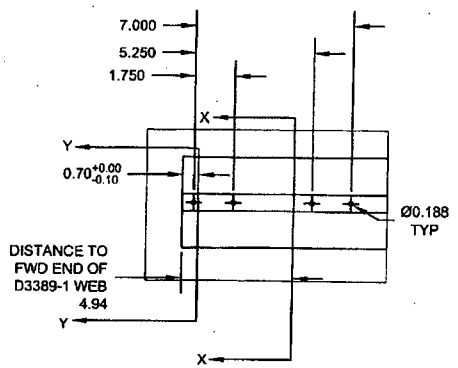
ALS4-1032-130 AELS4-1032-130 Purchased No 230 Each 9,937.000 20 20

ALS4-1032-130

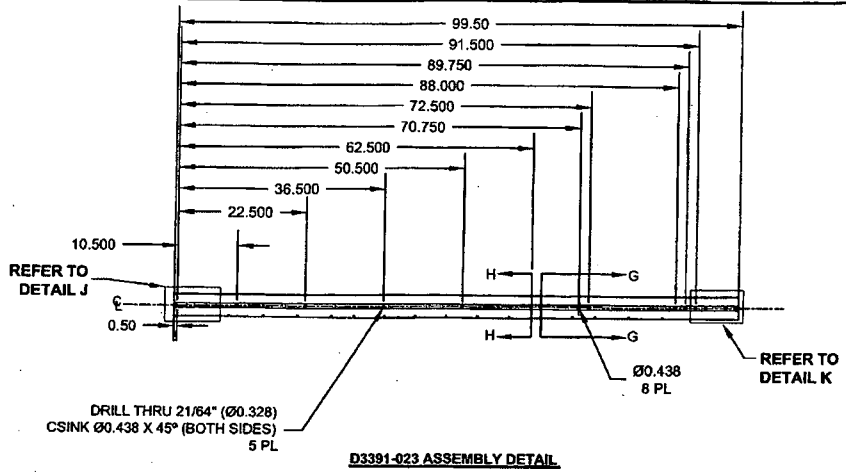
Rivnut

**

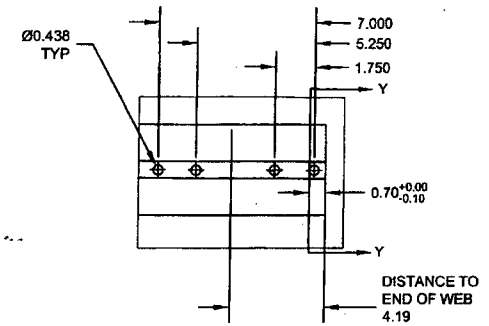
Location		Loc Qty	Loc Code
FP001		9832	
	M128649	9832	x20
ST279		48	
	M128211	48	
st510		57	
	M126109	57	



DETAIL J
SCALE 4X

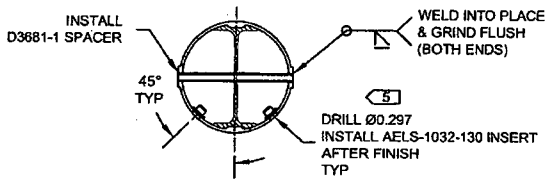


D3391-023 ASSEMBLY DETAIL

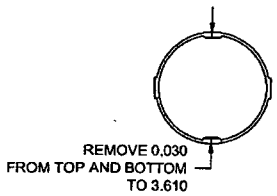


DETAIL K
SCALE 4X

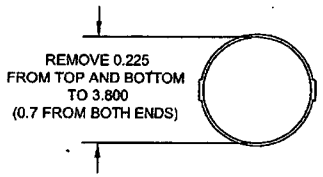
SECTION G-G
SCALE 5X



SECTION H-H 5 PL
SCALE 5X



SECTION X-X
SCALE 5X



SECTION Y-Y
SCALE 5X

D3391-023 MID TUBE ASSEMBLY PARTS LIST

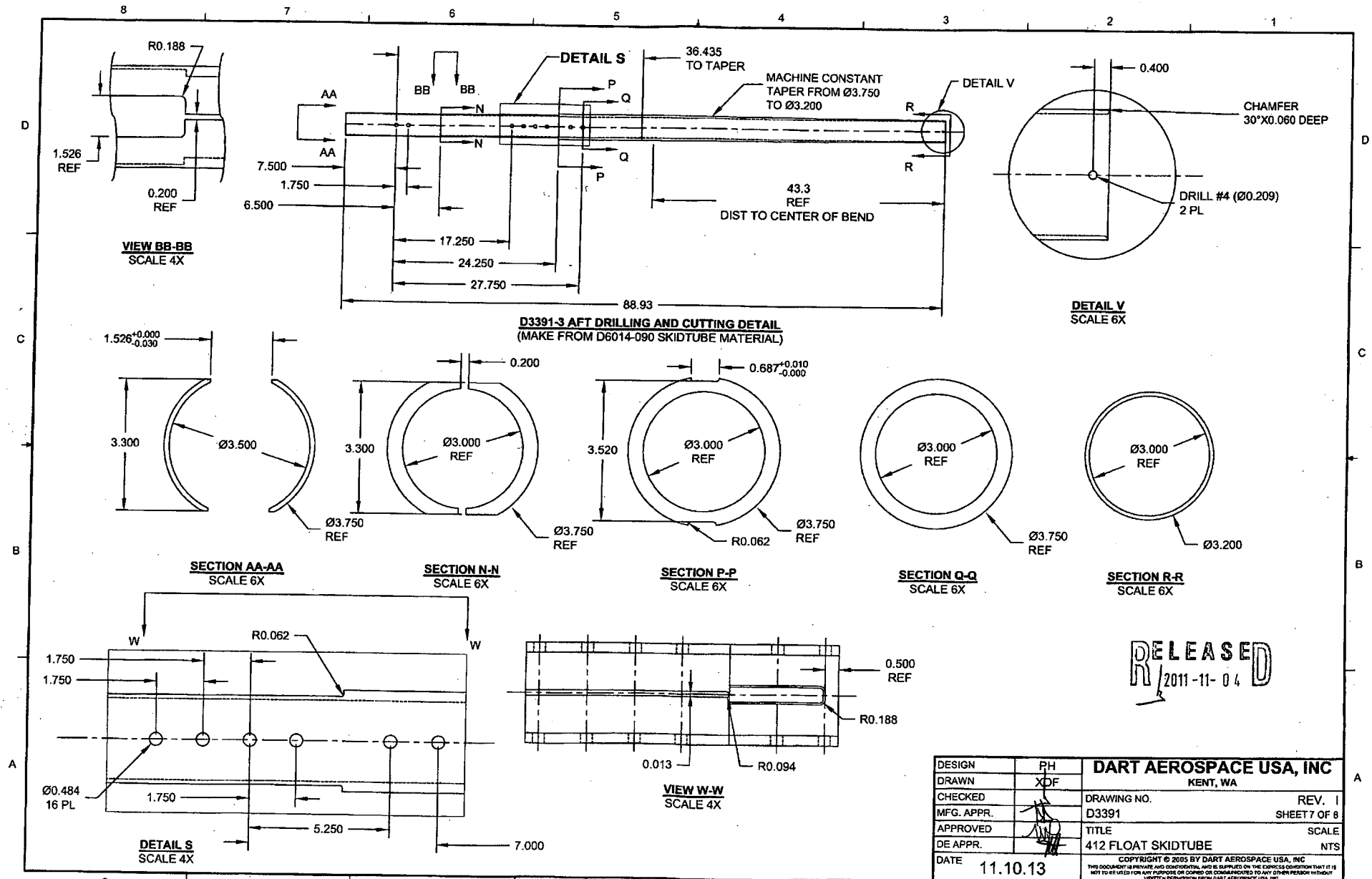
QTY - 023	PART NUMBER	DESCRIPTION
X	D3391-023	MID TUBE ASSEMBLY
1	D2500-1-100	EXTRUSION
1	D3389-1	WEB
5	D3681-1	SPACER
20	AELS-1032-130	INSERT

D3391-023 MID TUBE ASSEMBLY
1) MATERIAL: MAKE FROM D2500-1-100 EXTRUSION
2) INSTALL D3389-1 WEB TO OUTER TUBE USING SIKAFLEX-241/-291 PER QSI 015
3) WELDING: PER DART QSI 004

115504 MCJ
14-04-02

RELEASED
2011-11-04

DESIGN	PH	DART AEROSPACE USA, INC
DRAWN	XDF	KENT, WA
CHECKED		DRAWING NO. REV. I
MFG. APPR.		D3391 SHEET 6 OF 8
APPROVED		TITLE SCALE
DE APPR.		412 FLOAT SKIDTUBE NTS
DATE	11.10.13	



RELEASED
2011-11-04

DESIGN	PH	DART AEROSPACE USA, INC
DRAWN	XDF	KENT, WA
CHECKED		DRAWING NO. D3391 REV. I
MFG. APPR.		SHEET 7 OF 8
APPROVED		TITLE 412 FLOAT SKIDTUBE
DE APPR.		SCALE NTS
DATE	11.10.13	